

New Brunswick

November 2019 Review December 2019 and Winter Outlook

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Meteorological Service of Canada
Environment and Climate Change Canada
December 2, 2019



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November 2019; Climate Summary

Station Name	Prov	TC ID	Station Type	Mean Temperature (°C)			Total Precip (mm)			
				Monthly Mean	Normal Mean	Diff from Normal	Monthly Total	Normal Total	Total as % of Normal	Diff from Normal as % of Normal
AROOSTOOK	NB		DAILY	-1.9	0.2	-2.1	85.2	93.5	91	-9
BAS CARAQUET	NB	WXS	AU8	0.3	1.3	-0.9				
BAS CARAQUET	NB		DAILY				84.2	102.4	82	-18
BATHURST A	NB	ZBF	NCA	-1.5	0.8	-2.2	75.4	103.8	73	-27
BOUCTOUCHE CDA CS	NB	ABT	AU8	0.4	1.7	-1.3	118.1	102.9	115	15
CHARLO AUTO	NB	ZCR	AU8	-1.7	-0.7	-1.0	59.2	92.3	64	-36
MIRAMICHI RCS	NB	ACQ	AU8	-0.8	0.7	-1.5				
DOAKTOWN AUTO RCS	NB	ADN	AU8	-1.4	0.7	-2.1				
EDMUNDSTON	NB	ERM	AU8	-4.2	-0.6	-3.6	101.2	91.2	111	11
FREDERICTON INTL A	NB	YFC	NCA	-0.6	1.5	-2.1	118.1	106.3	111	11
FREDERICTON CDA CS	NB	AFC	AU8	-0.3	1.8	-2.1	128.2	109.9	117	17
GAGETOWN AWOS A	NB	YCX	AU5	-0.2	2.5	-2.7	100.5	101.8	99	-1
GRAND MANAN SAR CS	NB	XGM	AU8	2.0						
KOUCHIBOUGUAC	NB	AKC	AU8	-0.1	1.2	-1.3				
MECHANIC SETTLEMENT	NB	AMS	AU8	-0.9			237.7			
MISCOU ISLAND (AUT)	NB	WMI	AU8	0.9						
MONCTON INTL A	NB	YQM	NCH	0.3	1.9	-1.6	95.7	107.2	89	-11
MONCTON A	NB	YQM	NCA	0.5	1.9	-1.4				
OAK POINT	NB		DAILY	0.7	2.5	-1.8	170.5	101.8	168	68
POINT LEPREAU CS	NB	WPE	AU8				168.4	140.4	120	20
RED PINES	NB	ARP	AU8	-1.9	-0.1	-1.9	103.5	89.4	116	16
SAINT JOHN A	NB	YSJ	NCH				191.0	134.1	142	42
ST. STEPHEN	NB	WSS	AU8	0.0						
SUSSEX FOUR CORNERS	NB	ASF	AU8	0.5	2.4	-1.8	147.0	110.0	134	34
WOODSTOCK	NB		DAILY	-1.7	0.3	-2.0	123.8	103.2	120	20
WOODSTOCK NEWBRIDGE	NB	EWD	AU8	-1.8	0.3	-2.1	126.9	103.2	123	23
Average				-0.6	1.1	-1.9	124.1	105.5	110	10
Max				2.0	2.5	-0.9	237.7	140.4	168	68
Min				-4.2	-0.7	-3.6	59.2	89.4	64	-36

Highlights:

The average temperature anomaly was below normal (-1.9C). All sites reported a negative anomaly. Edmundston reported the largest negative anomaly at -3.6C.

Total precipitation amounts were slightly above normal, with an average of 110% of total precipitation. Oak Point reported the largest positive anomaly at 168%. Total precipitation in the form of snow was generally 1.5 to 3 times more than normal whereas precipitation in the form of rain was mostly below normal.



November 2019; Climate Summary

Events:

November 1; Halloween storm. Strong winds and rain pelted the province beginning on Halloween and ending on November 1st. Amounts varied across the province (10-30 mm) with the Fundy area and the northwest receiving the most rain (50-75 mm). 87 mm was reported at Mechanic Settlement. Winds gusted out of the east and as high as 100 km/h in Sussex.

November 7-8; Snow event. First accumulating snow of the season. Areas in the north received 5-10 cm while central regions received a rain/snow mix. The Hoyt area reported the most snow with 22 cm.

November 11-12; Winter storm event. A mixed bag of precipitation (10-30 mm/cm) invaded the province with areas in the north seeing snow while central regions endured mixed precipitation and the south had rain. The Doyleville area reported the most snow with 43 cm.

November 18-19; Mixed precipitation event. The north saw 15-20 cm of snow, central regions saw mixed precipitation (15-25 mm) while the south saw rain (20-30 mm). The St-Quentin area reported the most snow with 25 cm and Grand Manan reported 48 mm of rain.

November 24-25; Winter storm event. Snow and freezing precipitation blasted north and central areas. The St-Quentin area reported the most snow with 30 cm.

November 27-28; Snow event. Accumulating snow moved across portions of the south with generally 5-15 cm. The Woodstock area reported the most snow with 22 cm.

Days with thunderstorm activity (lightning) in New Brunswick; 15 28 (2 days)

Days with temperature records broken or tied in New Brunswick; 1 13 14 16 18

(red=maximum, blue=minimum)



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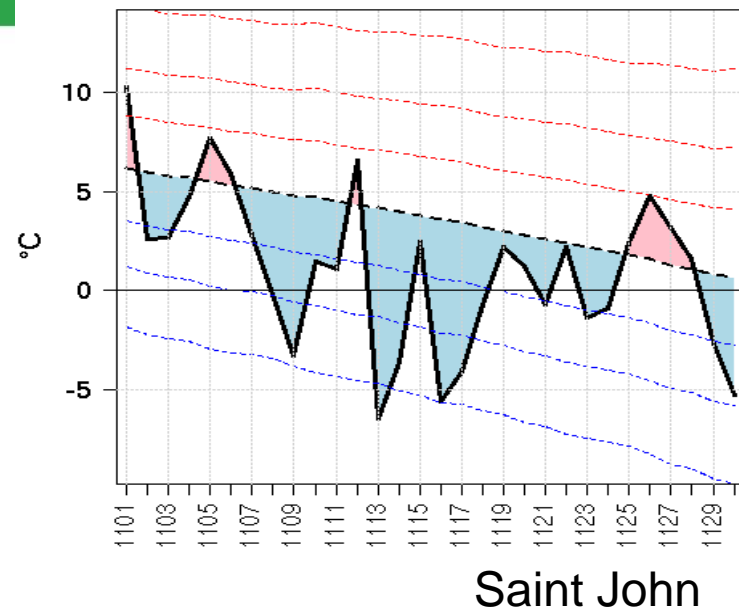
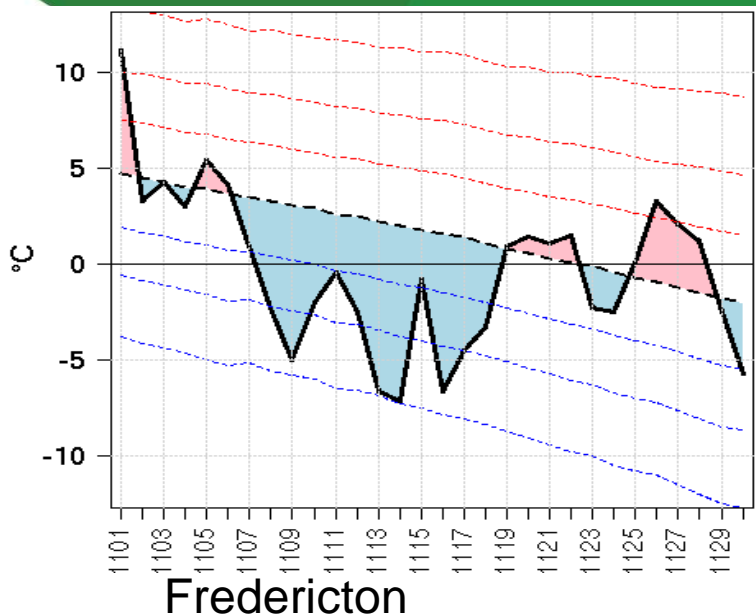
November 2019; Provincial Climate Extremes

Parameter	Value	ECCC Station	Day of month
Daily Maximum Temperature	+19.8 °C	Kouchibouguac	1
Daily Minimum Temperature	-23.0 °C	Edmundston	14
Maximum Daily Total Precipitation	40.2 mm	Mechanic Settlement	1
Daily Maximum Wind Gust	100 km/h	Sussex	1
Daily Minimum Wind Chill	-25	Edmundston	17



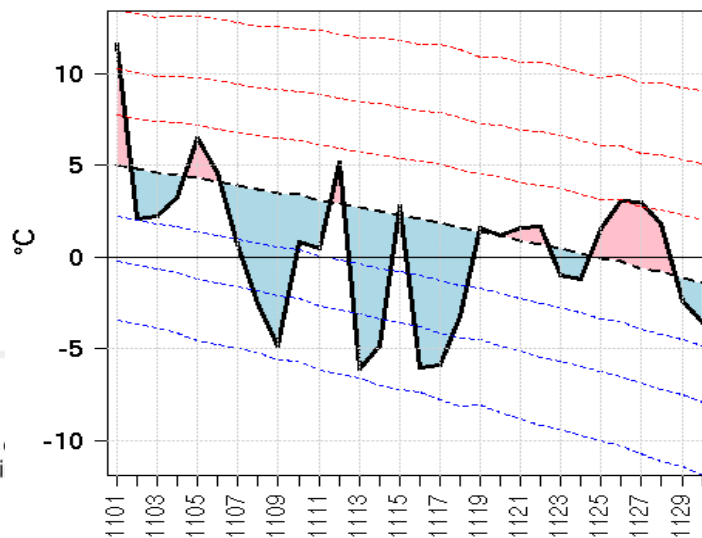
November 2019 - Temperature

Daily Mean Temperature (bold line) versus Normal (thin line) and +/- 0.7, 1.3, 2.1 SD (red/blue dashes)



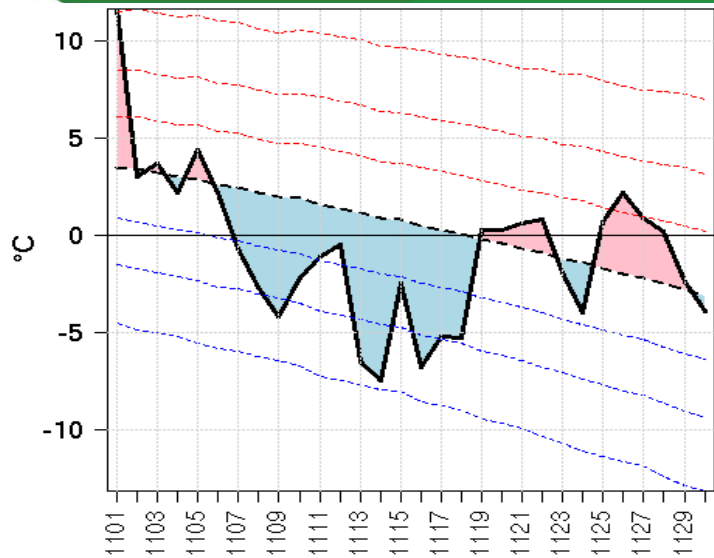
All sites were below normal

Moncton

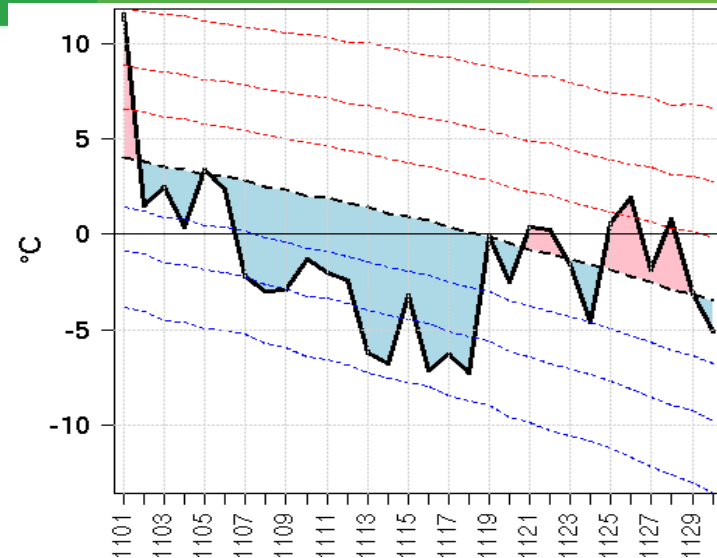


November 2019 - Temperature

Daily Mean Temperature (bold line) versus Normal (thin line) and +/- 0.7, 1.3, 2.1 SD (red/blue dashes)



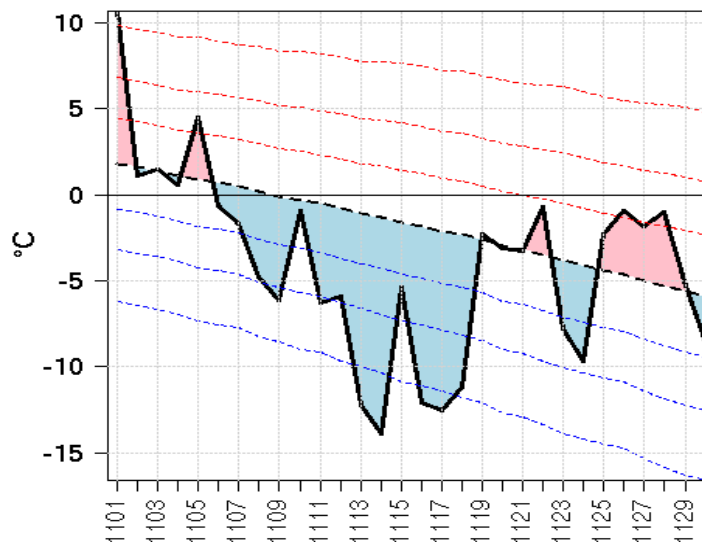
Miramichi



Bathurst

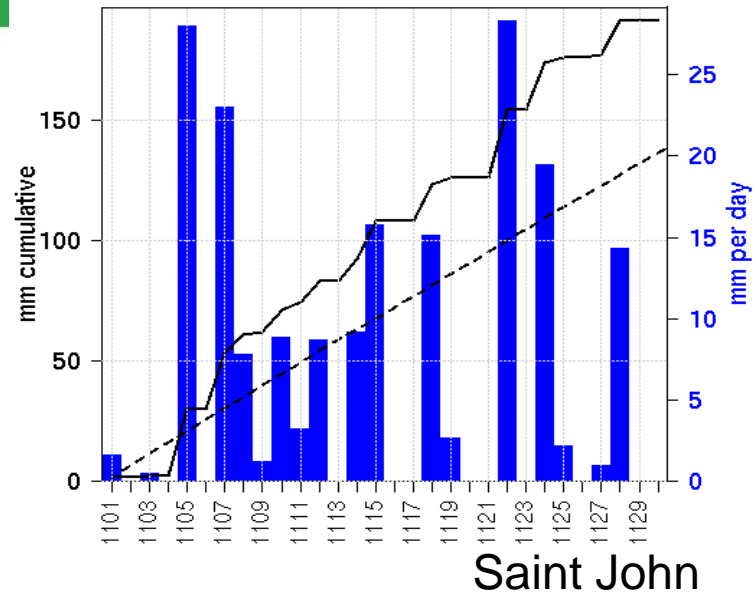
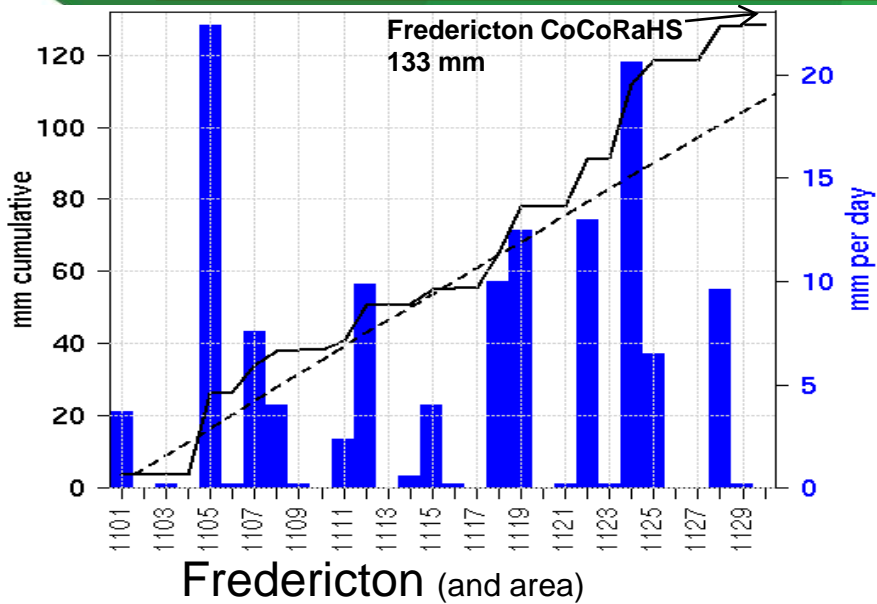
All sites were below normal

Edmundston



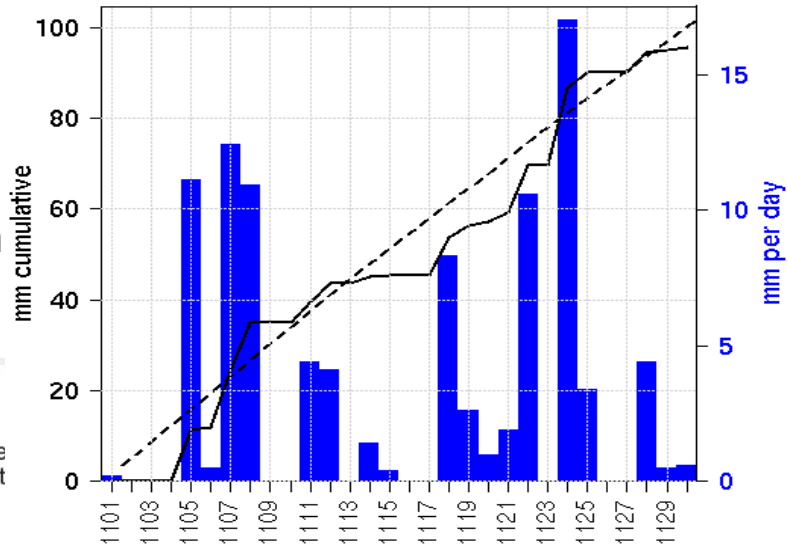
November 2019 - Precipitation

Observed Cumulative Precipitation (line) versus Normal (dashed line) and Daily Amounts (bars)



Fredericton and Saint John were above normal

Moncton



Moncton was near normal

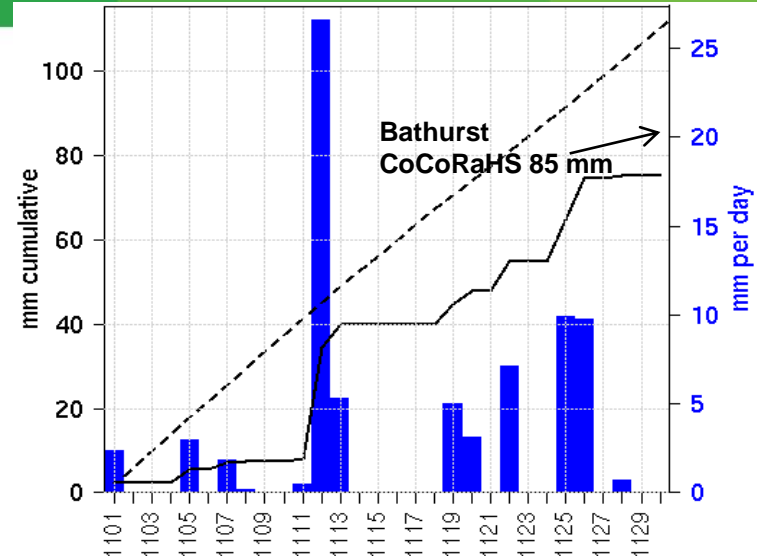
November 2019 - Precipitation

Observed Cumulative Precipitation (line) versus Normal (dashed line) and Daily Amounts (bars)

Miramichi
CoCoRaHS 123 mm

Graph N/A due to
erroneous data

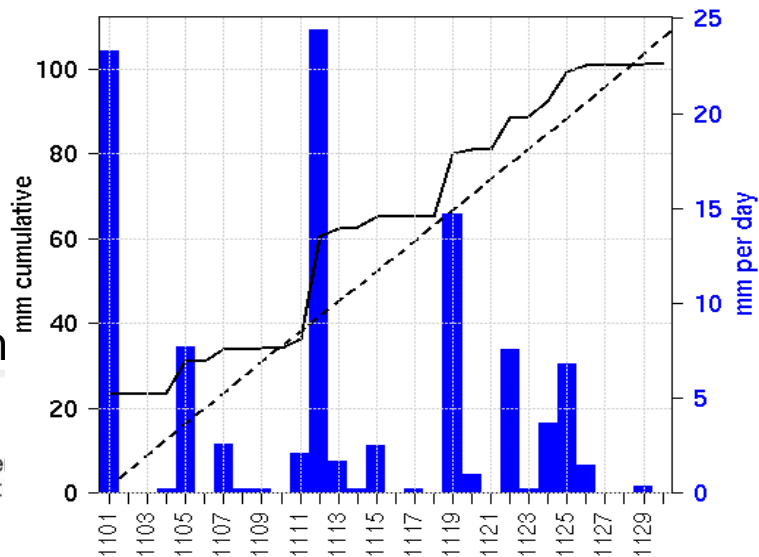
Climate normal 106 mm



Miramichi

Edmundston
and Miramichi
were near
normal

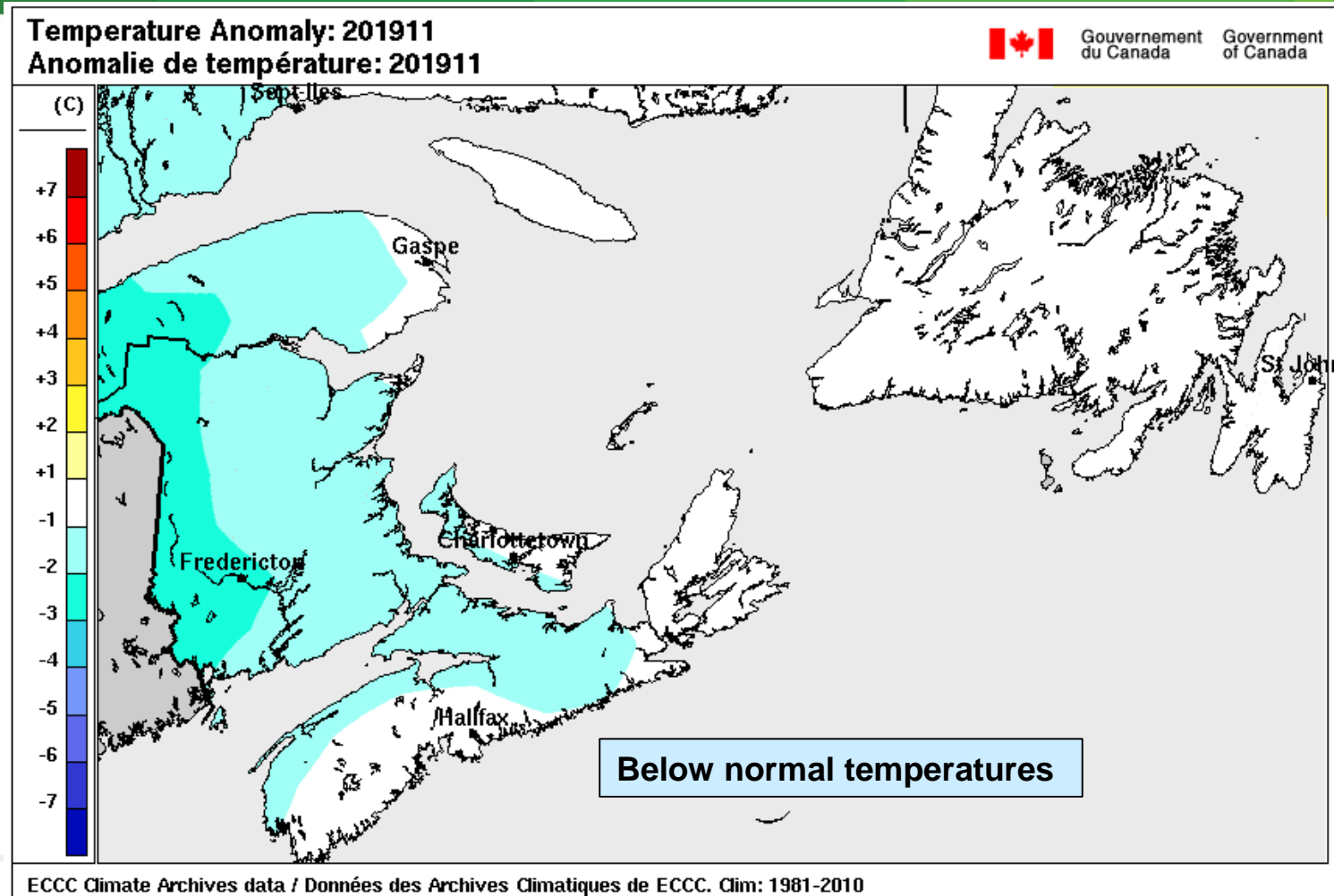
Edmundston



Bathurst was
below normal



November 2019 – Temperature departure from 1981-2010 mean

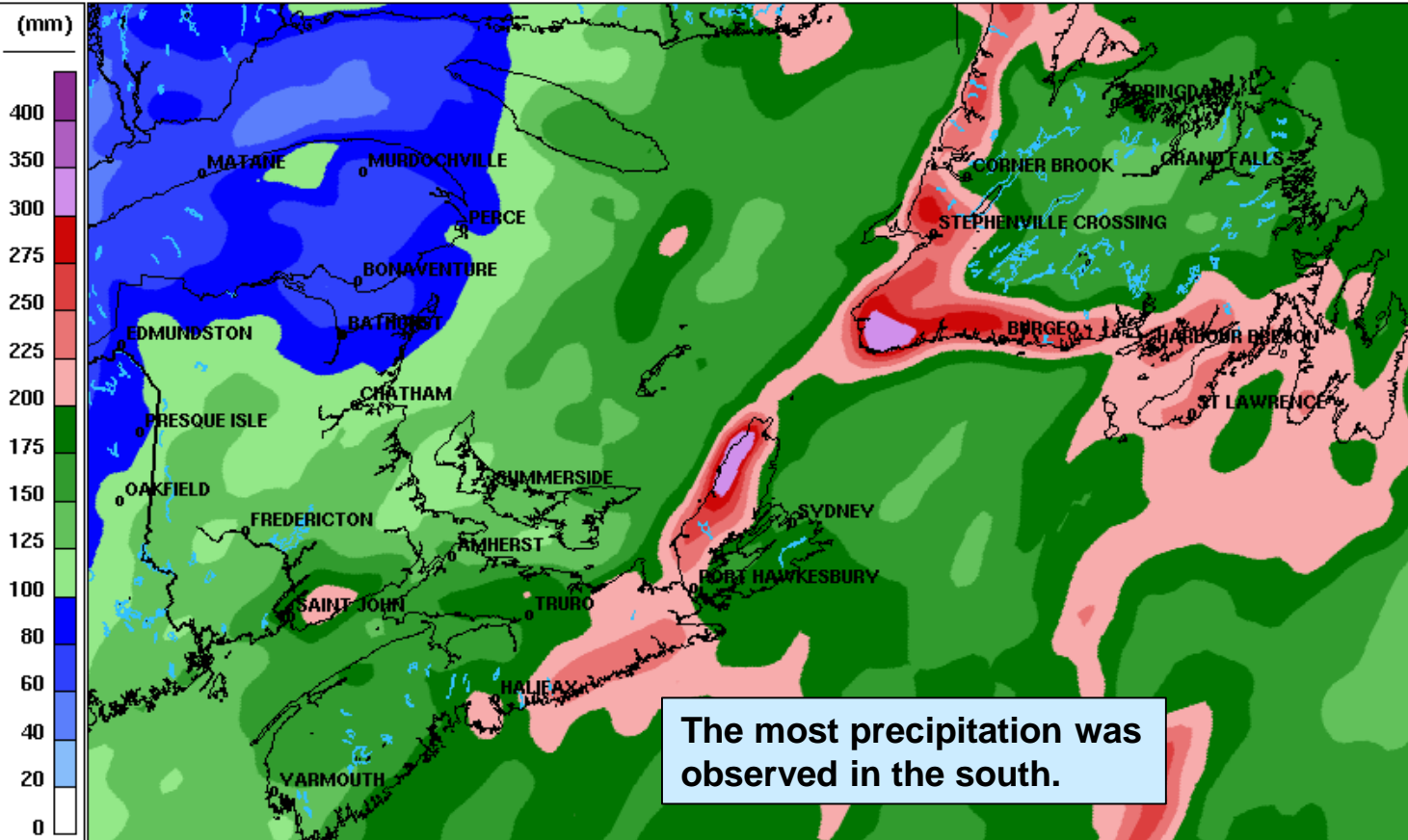


November 2019 – Total precipitation

Total precipitation: 201911
Précipitation totale: 201911



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The most precipitation was observed in the south.

ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC



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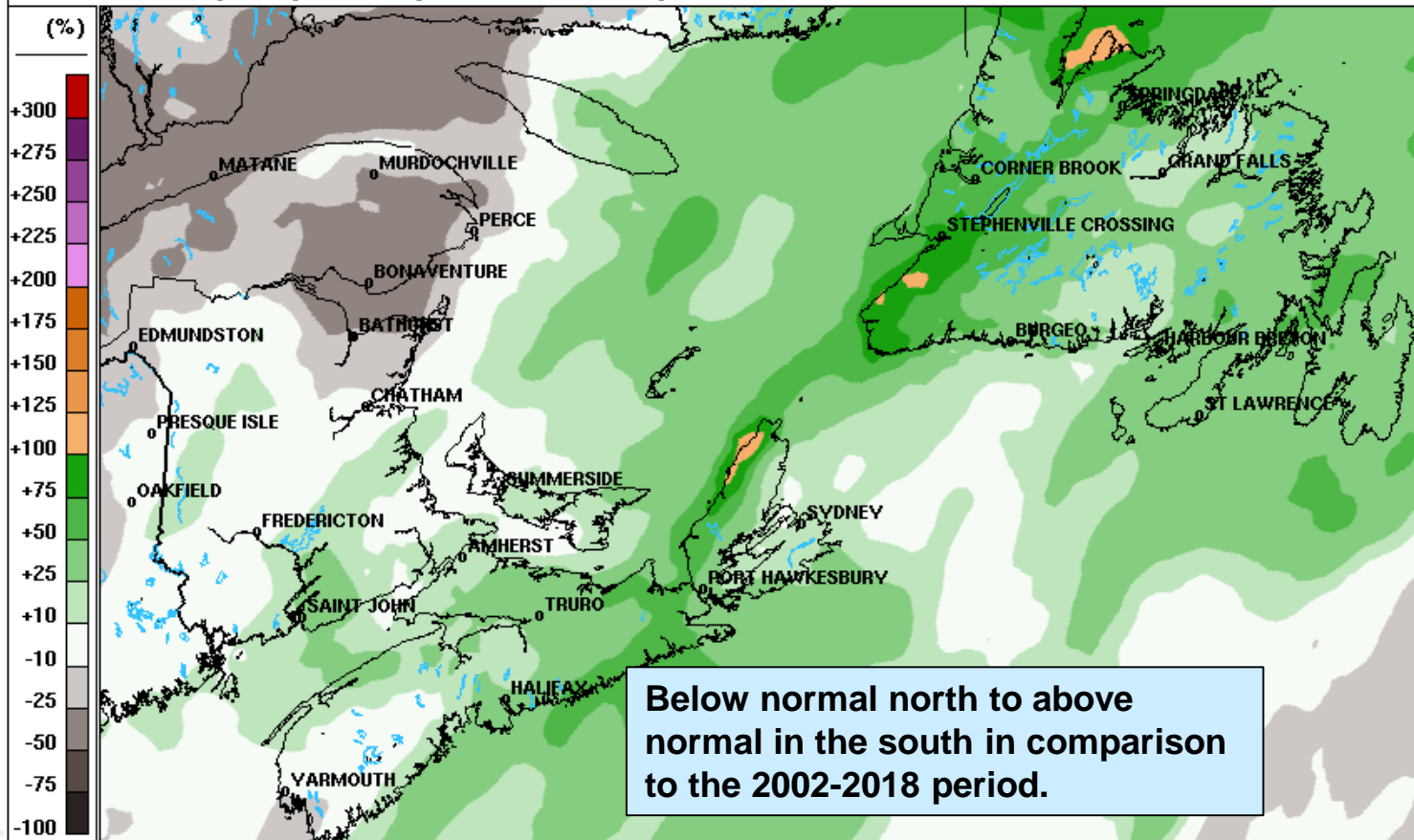
November 2019 – Precipitation departure from 2002-2018 mean

Precipitation Anomaly (% of normal): 201911
Anomalie de précipitation (% de la normale): 201911



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ECCC NWP model gridded data / Données sur grille de modèle de PNT de ECCC. Normal: 2002-2018



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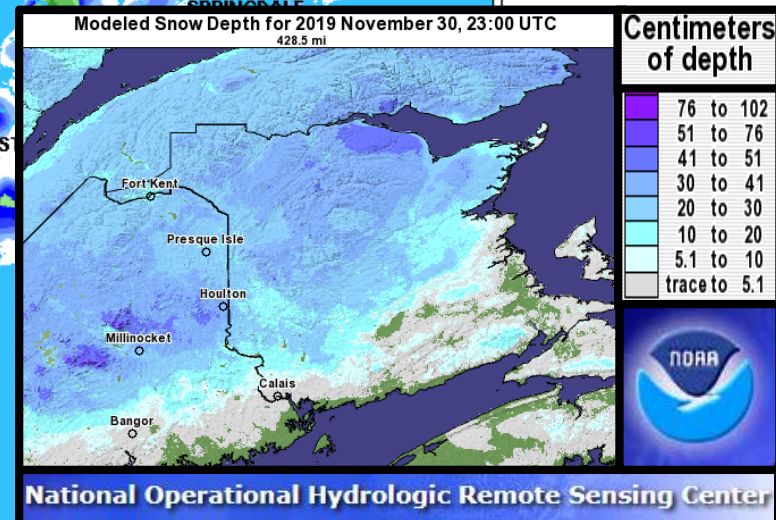
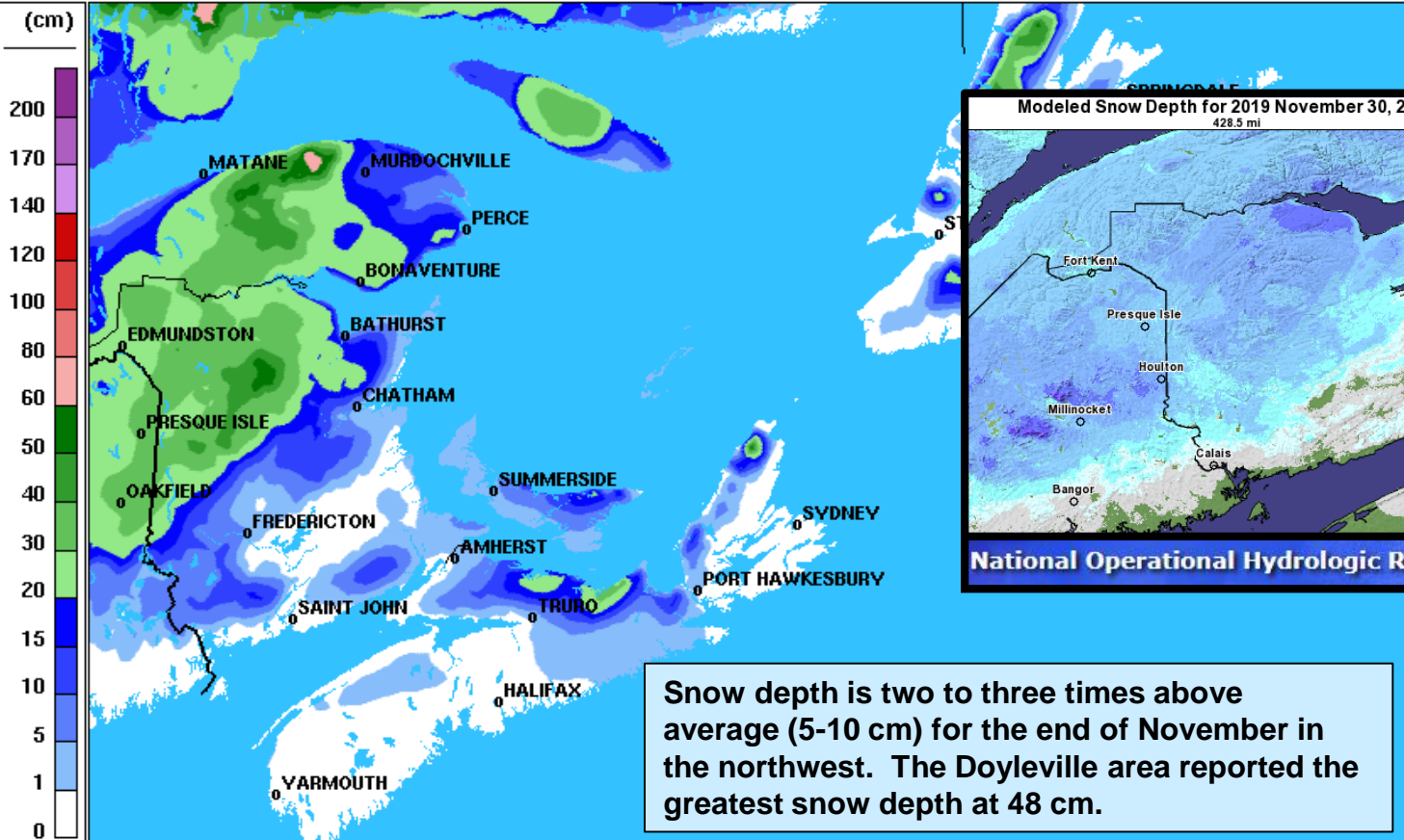
November 2019 – Snow depth at month end

Extracted from Canadian computer model

Snow depth, valid 20191130 12UT
 Profondeur de la neige, valide 20191130 12TU



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Data: Environment Canada's RDPS analysis / Données: Analyse du SRPD d'Environnement Canada



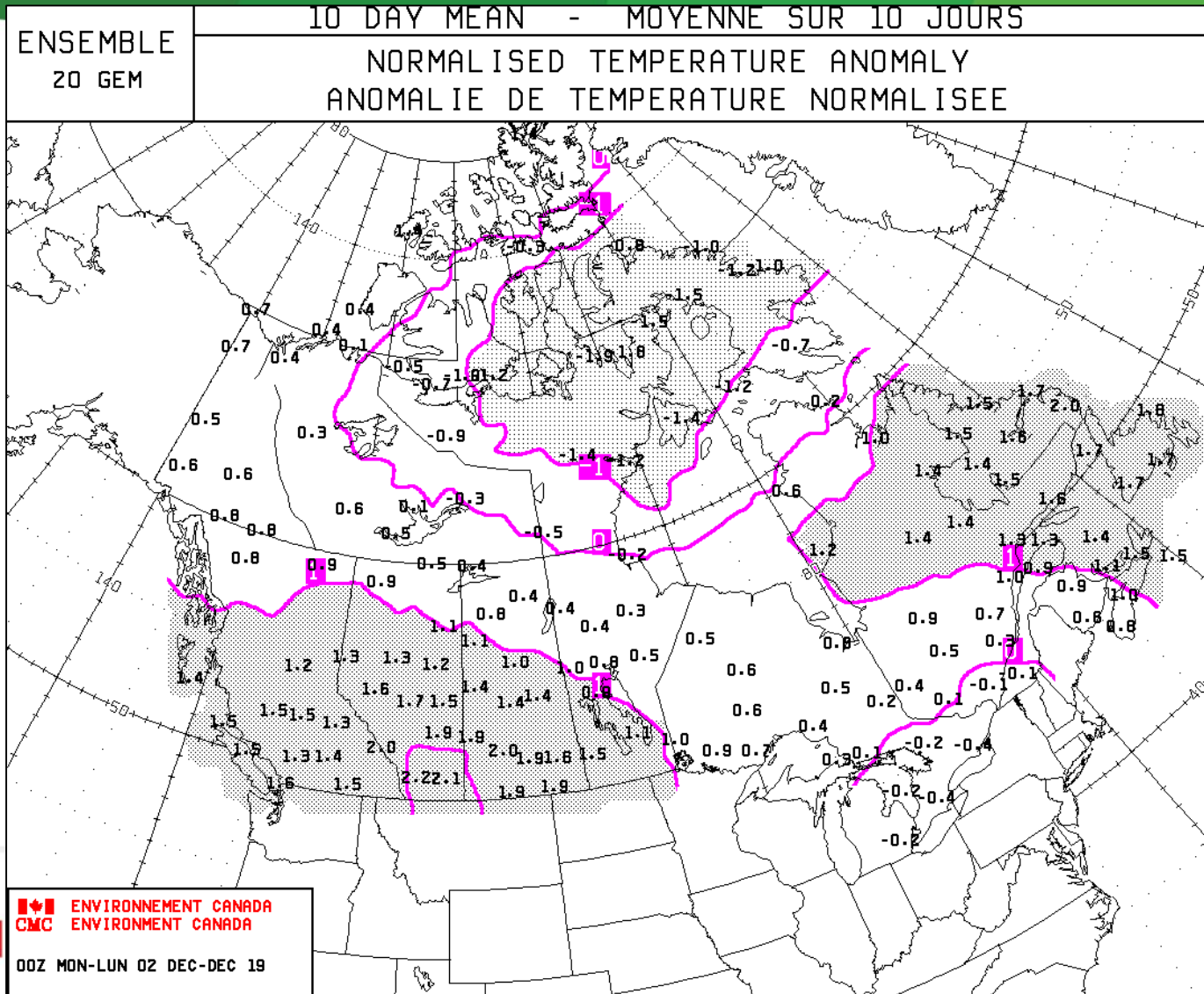
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Outlook – 10 day mean temperature

(Suggesting slightly above normal conditions (+0.5 to +1.0°C))



10 day
forecast
ending
December
12, 2019



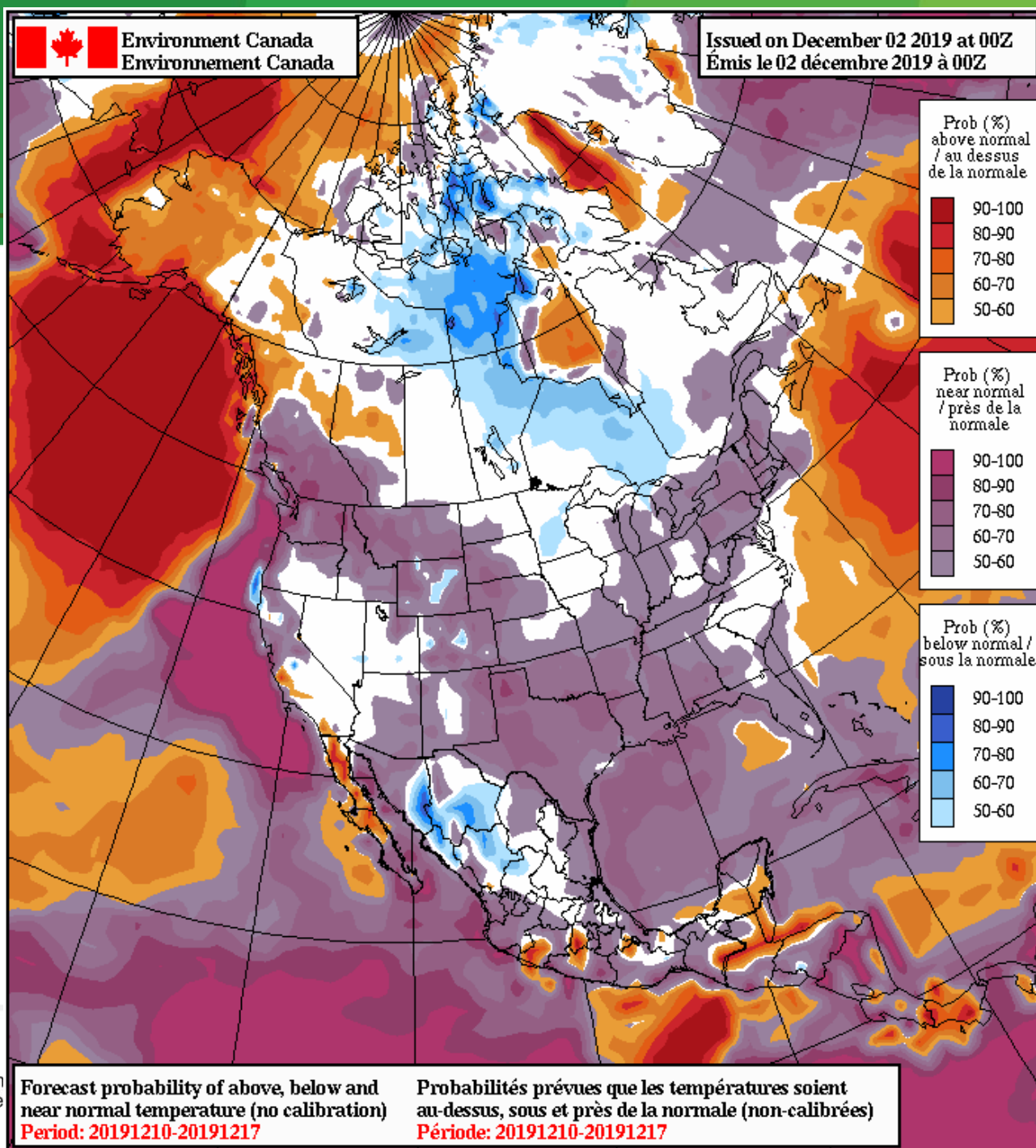
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Day 8 to 14 Forecast

Period ending
December 17,
2019

Suggesting near
normal conditions.



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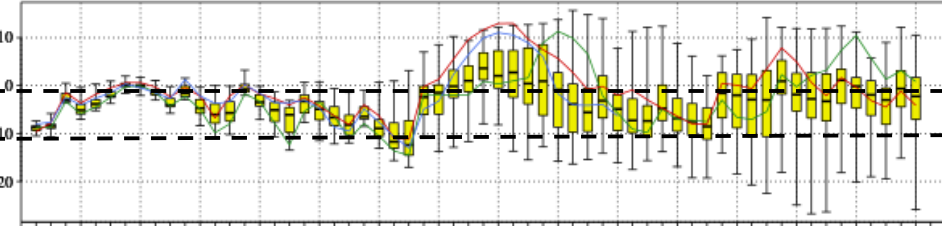
Fredericton

Ensemble and Deterministic Forecasts issued 2 December 2019 00 UTC
Prévision d'ensemble et déterministe émises le 2 Décembre 2019 00 UTC
for/pour

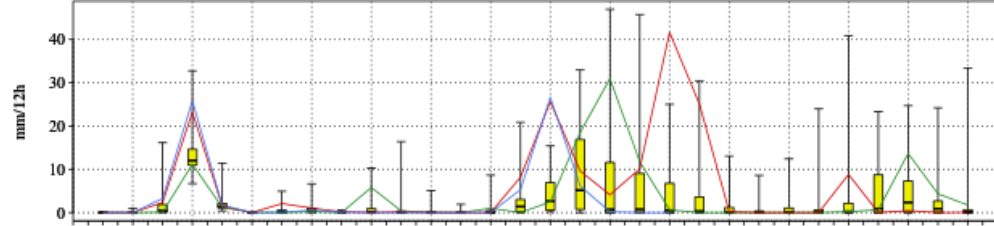
NAEFS / SPENA

FREDERICTON (YFC) 45.87 N 66.53 W/O
Surface air temperature/Température de l'air à la surface

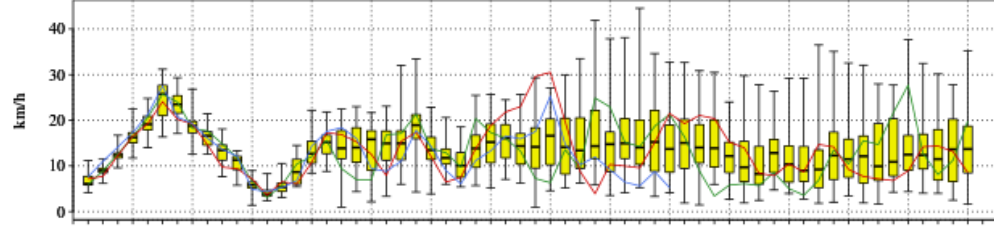
December
Normal high: -0.7C
Normal low: -10.7C



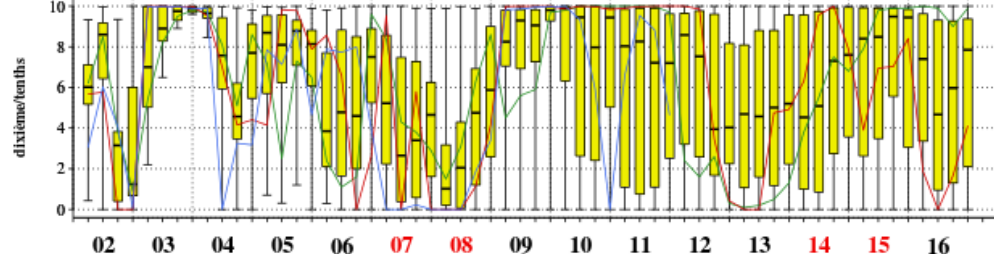
Précipitations/Precipitation



Surface wind speed/Vitesse du vent à la surface



Total cloud cover/Couvert nuageux



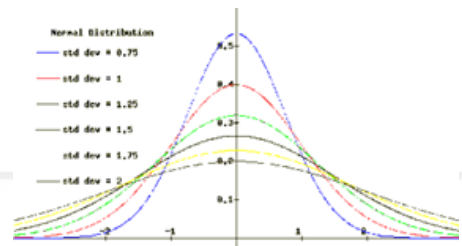
December/Décembre 2019

max
75%
median/médiane
25%
min

Global Model / Modèle global
Control Member / Membre contrôlé CMC
Control Member / Membre contrôlé NCEP

Next 15 days; ending December 17, 2019

Above or near normal for the first six days, then much above normal for the middle of the period then a weak signal of remaining above or near normal for the rest of the period.

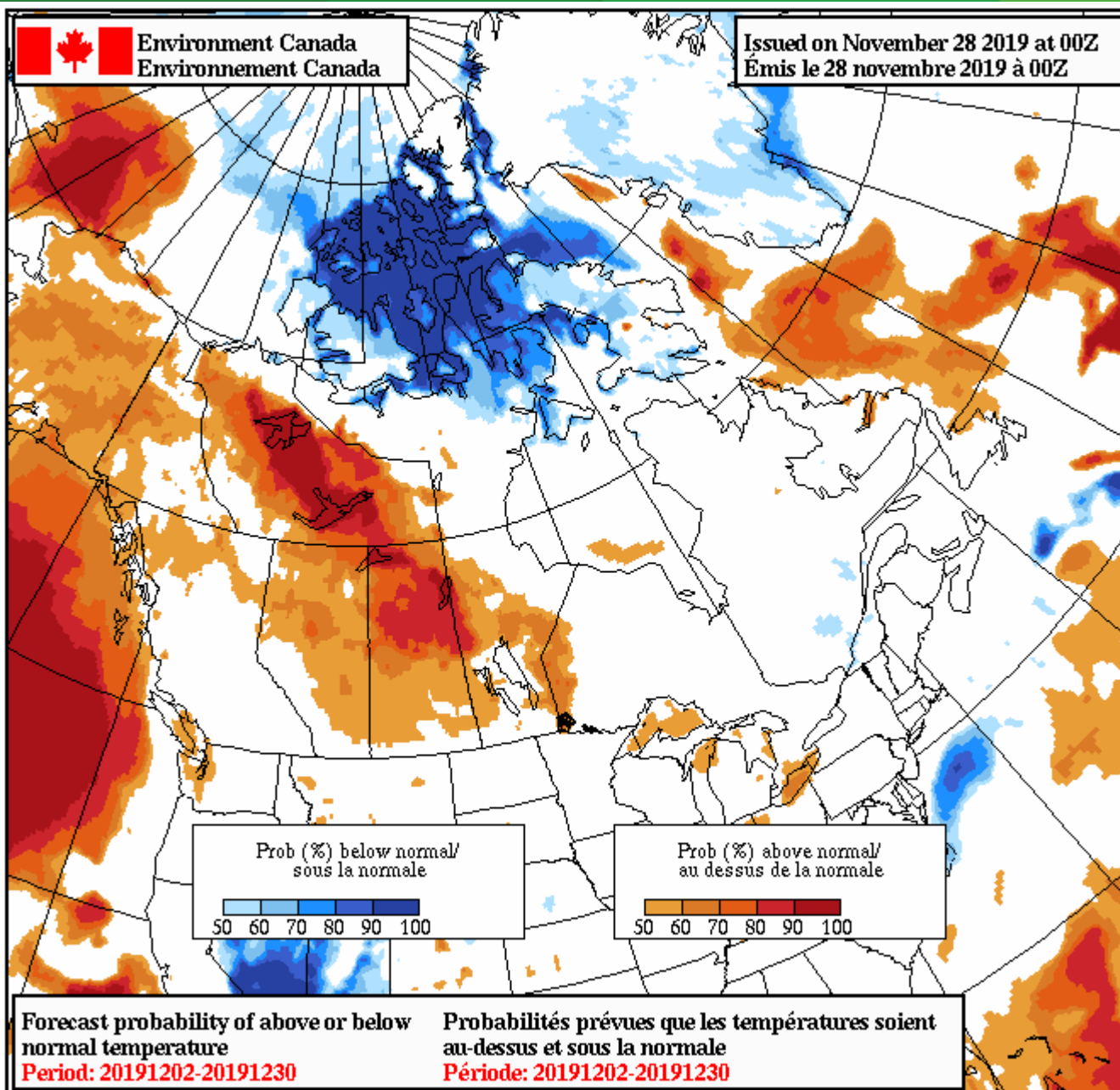




Environment Canada
Environnement Canada

Issued on November 28 2019 at 00Z
Émis le 28 novembre 2019 à 00Z

Temperature December 2 to December 30



Forecast probability of above or below
normal temperature

Period: 20191202-20191230

Probabilités prévues que les températures soient
au-dessus et sous la normale

Période: 20191202-20191230

CMC
Monthly
Forecast
Product
using GEPS
50km res.

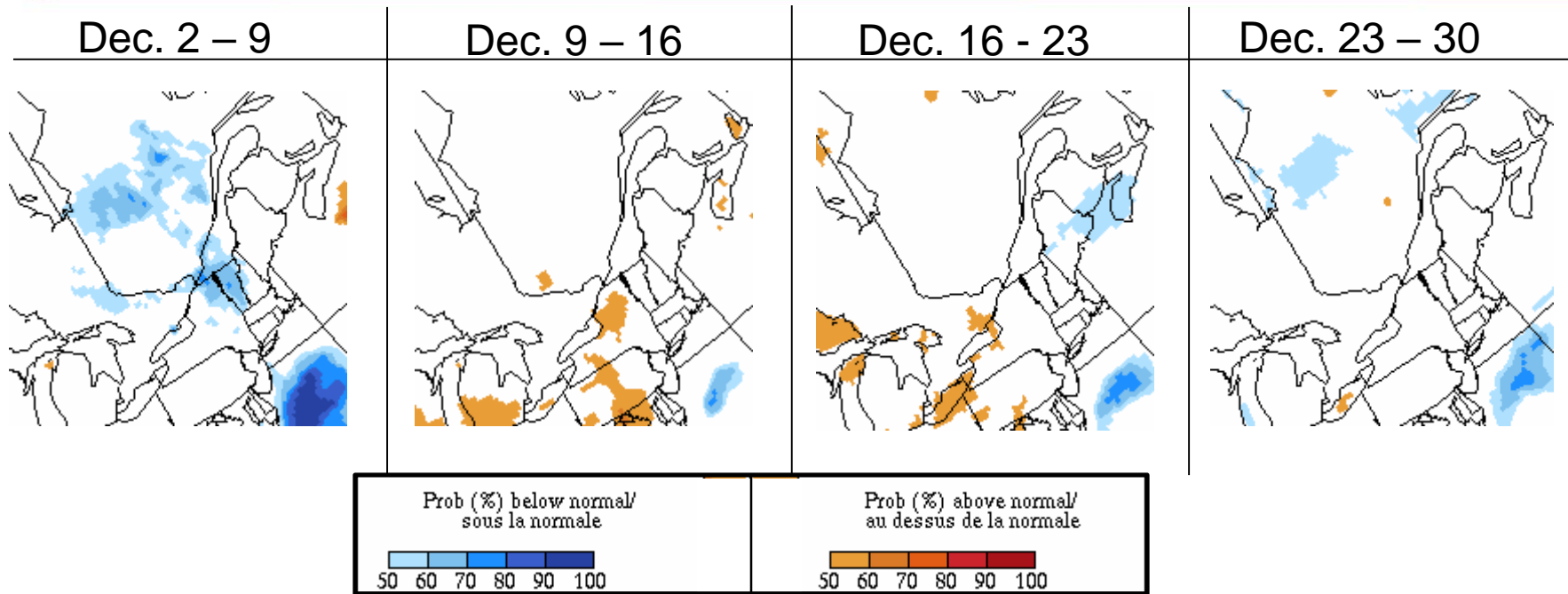


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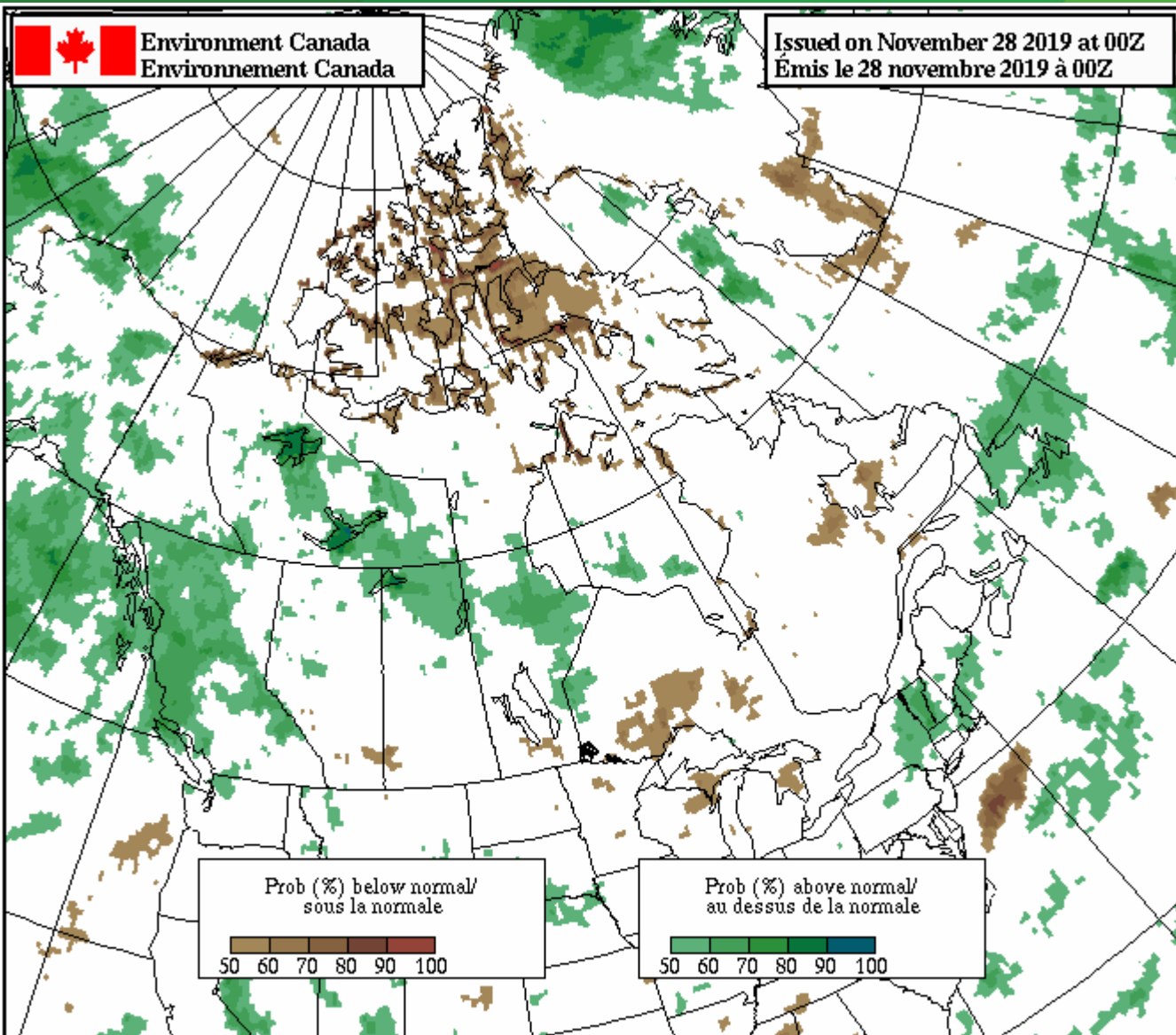
Weekly signature from GEPS 50km resolution



There is no real conclusive signal (near normal) for the period other than a weak indication of below normal for the third week for portions of the south.



Precipitation December 2 to December 30



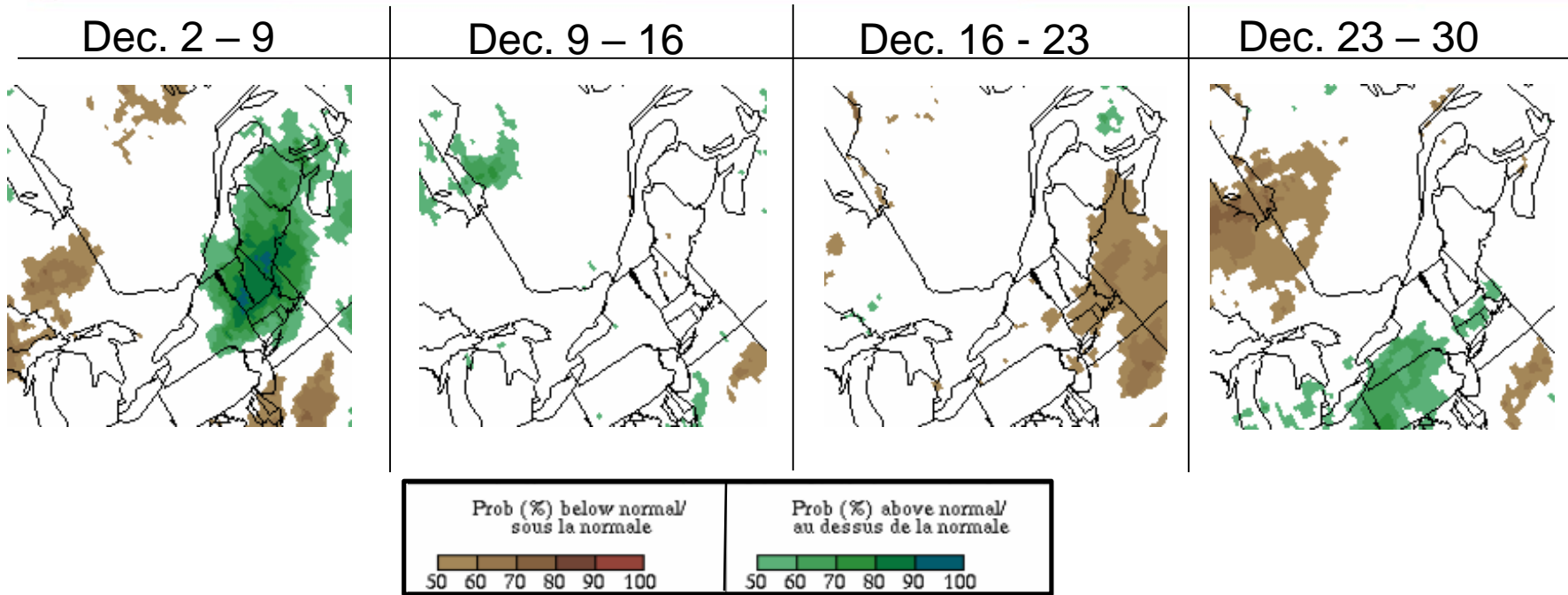
CMC
Monthly
Forecast
Product
using GEPS
50km res.

Forecast probability of above and below normal precipitation
Period: 20191202-20191230

Probabilités prévues que la quantité de précipitation soit au-dessus et sous la normale
Période: 20191202-20191230



Weekly signature from GEPS 50km resolution



A mixed bag of signals with the first week indicating a signal of above normal, the second and fourth weeks indicating near normal and the third week indicating a weak signal in the south of below normal but near normal elsewhere.

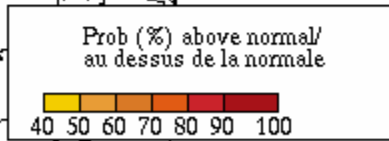
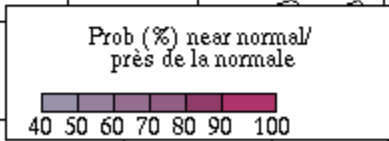
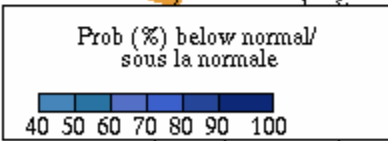
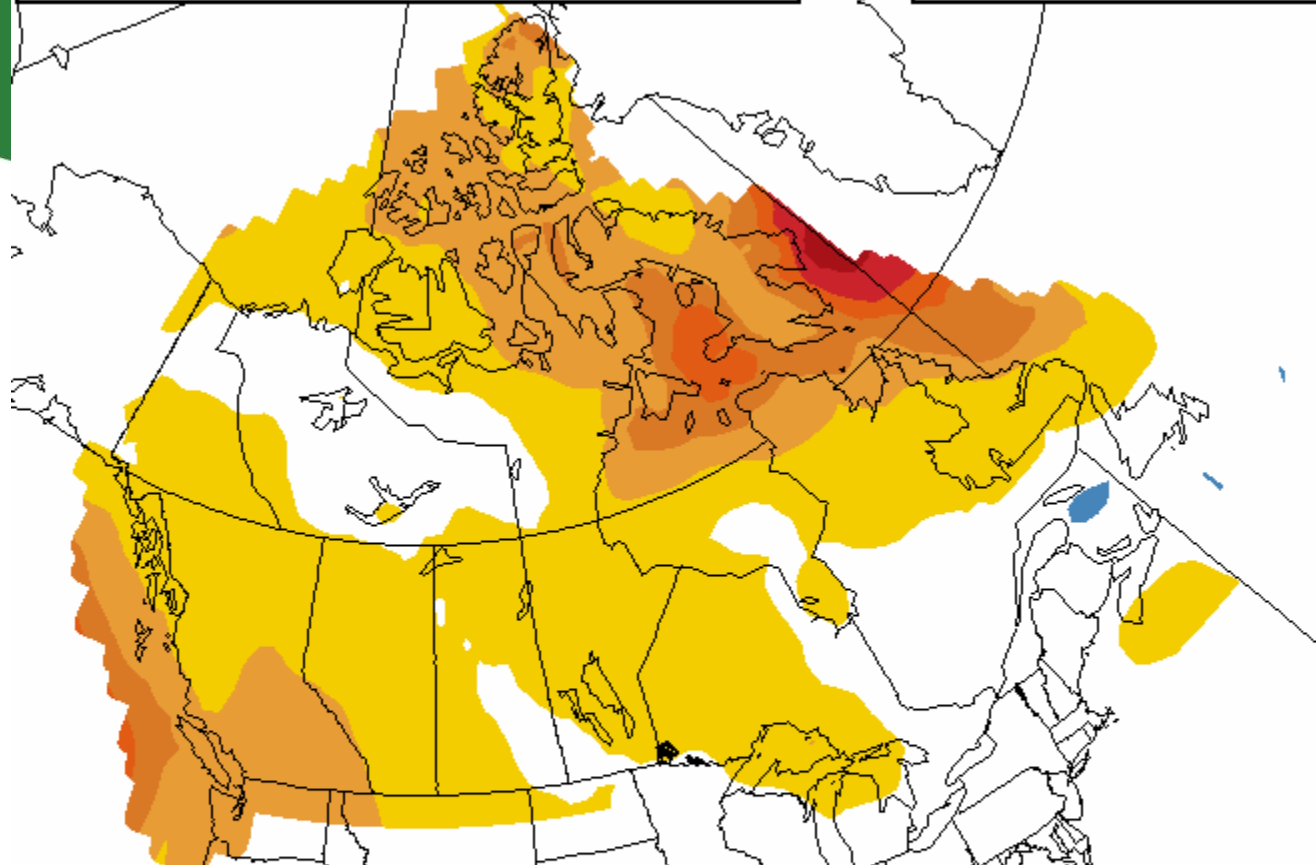




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Produced on 26 November 2019
Produit le 26 novembre 2019

Temperature January 2020



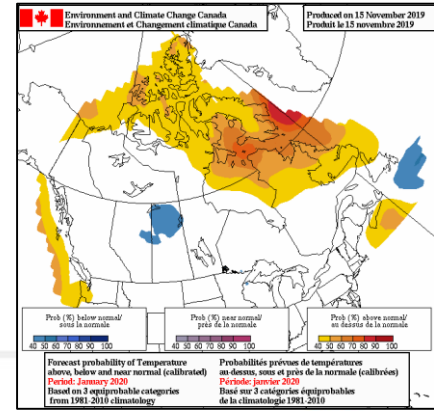
**Forecast probability of Temperature
above, below and near normal (calibrated)**
Period: January 2020
Based on 3 equiprobable categories
from 1981-2010 climatology

**Probabilités prévues de températures
au-dessus, sous et près de la normale (calibrées)**
Période: janvier 2020
Basé sur 3 catégories équiprobables
de la climatologie 1981-2010

CanSIPS
(Canadian Seasonal and
Interannual Prediction
System)

CanAM3
CanAM4
+
CanOM4

Produced November 15



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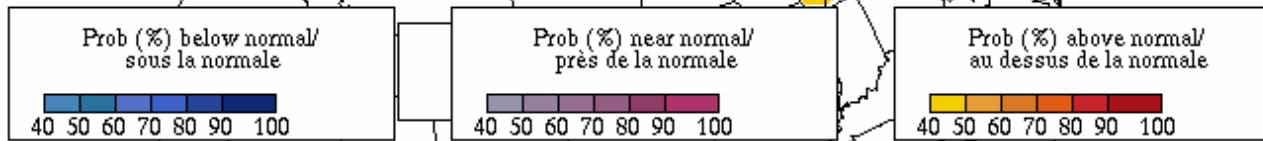
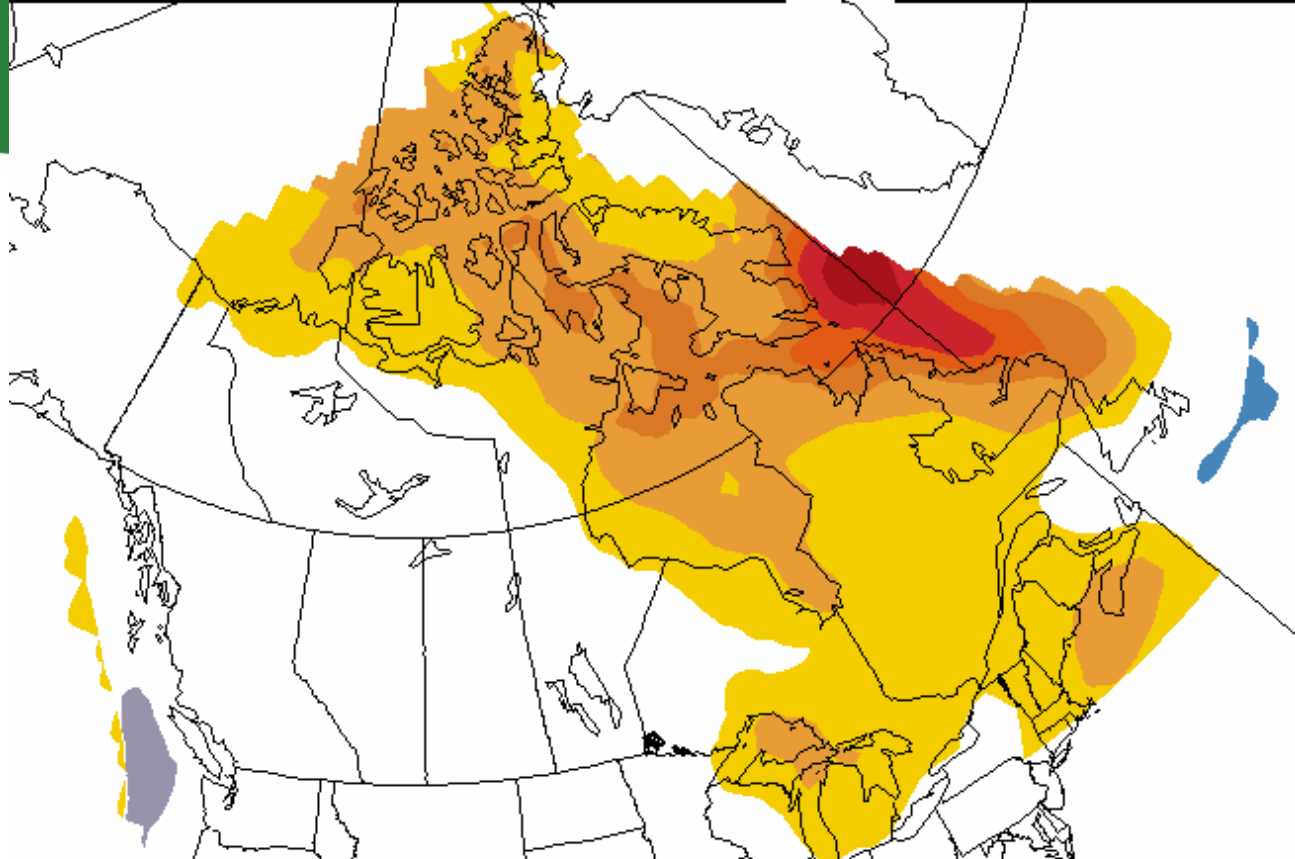




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Produced on 26 November 2019
Produit le 26 novembre 2019

Temperature February 2020



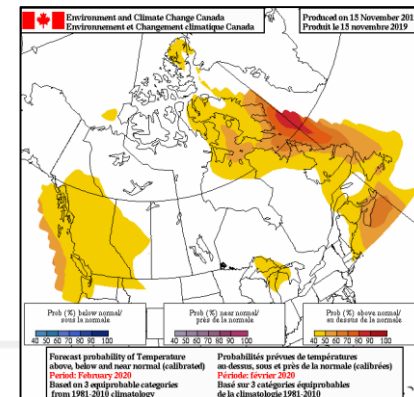
Forecast probability of Temperature above, below and near normal (calibrated)
Period: February 2020
Based on 3 equiprobable categories from 1981-2010 climatology

Probabilités prévues de températures au-dessus, sous et près de la normale (calibrées)
Période: février 2020
Basé sur 3 catégories équiprobables de la climatologie 1981-2010

CanSIPS
(Canadian Seasonal and Interannual Prediction System)

CanAM3
CanAM4
+
CanOM4

Produced November 15



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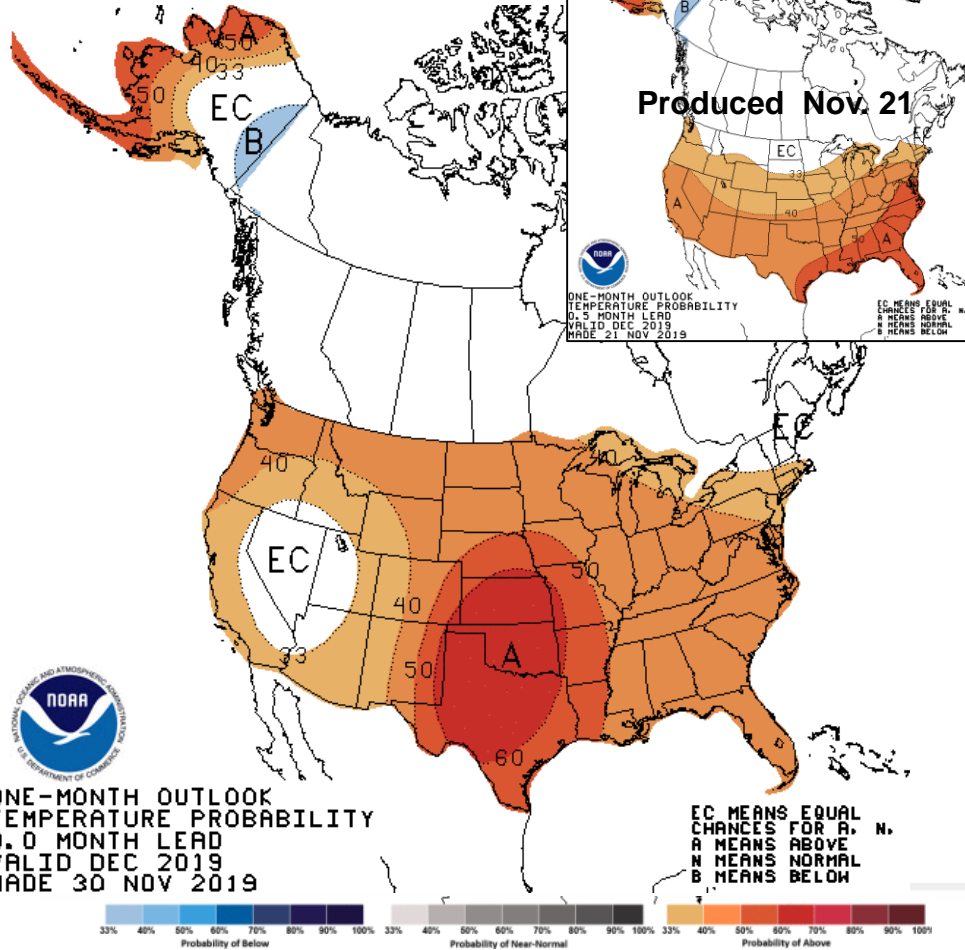
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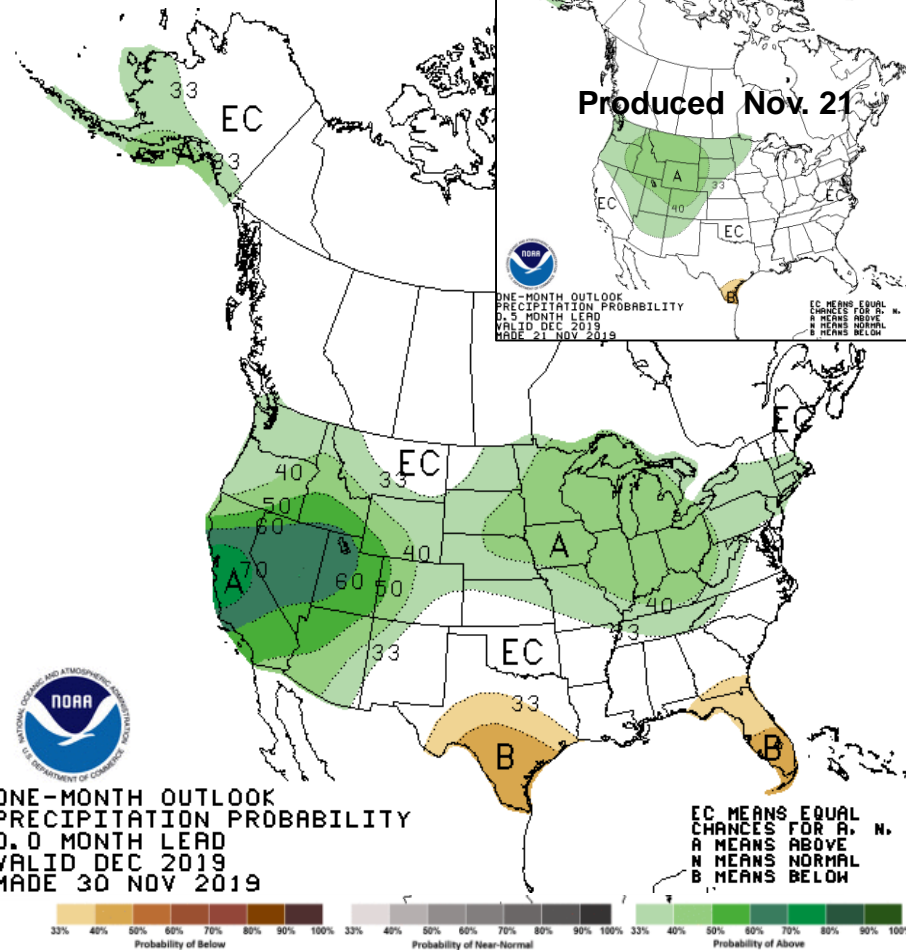


December 2019

Temperature



Precipitation



Contact

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Warning Preparedness Meteorologist

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Environment and Climate Change

Canada Weather Pages

www.weather.gc.ca

